CONSERVATION LAW FOUNDATION

October 31, 2008

Philip Giudice, Commissioner
Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

Re: Reply Comments – RPS Class I & Class II Regulations

Dear Commissioner Giudice:

The Conservation Law Foundation (CLF) appreciates this opportunity to submit reply comments in connection with DOER's implementation of Section 32 of the "Green Communities Act" with respect to updating certain aspects of Class I of the Massachusetts Renewable Energy Portfolio Standard (RPS) and establishing a new Class II. Given the number of commenting parties and the breadth of the issues raised, CLF's reply comments are directed only at the issues we find to be of particular concern. We would be pleased to supply additional feedback if requested by DOER.

Particularly considering the widely disparate views on most of the RPS Class I and II issues under consideration,[1] CLF respectfully encourages DOER to take a precautionary approach in framing any regulations that may be adopted on an "emergency" basis prior to a full formal rulemaking proceeding. The revised RPS statute includes a number of environmental criteria that will need to be addressed for the first time, and there is a corresponding risk of opening the door too wide at the outset such that inequities (real or perceived) would be created by having to tighten eligibility requirements later. It would be far better open up RPS eligibility at this time only for those facilities that very clearly should qualify pursuant to the terms of the revised statute.

"High-Btu Landfill Gas":

A few commenting parties, including Conectiv Energy Supply Inc. and Beacon Landfill Gas Holdings LLC (collectively, "CESI") and Green Gas Energy, argue that DOER should abandon existing RPS rules regarding landfill gas (LFG) generation eligibility and re-write the regulations to allow methane – or "high Btu landfill gas", as they put it – to be (a) extracted from landfills

[1] CLF notes the general consensus with respect to maintaining the existing Alternative Compliance Payment levels for RPS Class I resources (other than for on-site resources that call for higher levels), and substantial support for a separate solar/PV carve-out.

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throughout North America, (b) processed to meet interstate natural gas pipeline standards, (c) injected into the pipeline (commingled with natural gas), (d) purchased and sold by contract, and (e) combusted in natural gas power plants in the region to generate RPS-eligible output. As an initial matter, nothing in the Green Communities Act reflects an intention or mandate to modify existing RPS eligibility rules with respect to LFG. Moreover, what the "high-Btu landfill gas" proponents ignore is the fundamental requirement at the heart of both the former and newly revised Massachusetts RPS statutes that *only new renewable energy generating facilities are eligible* pursuant to Massachusetts RPS Class I. Since the original enactment of the Massachusetts RPS and continuing with the RPS as revised by the Green Communities Act, all retail electric suppliers must "provide a minimum percentage of kilowatt-hours sales to end-use customers in the commonwealth *from new renewable energy generating sources*." Mass. G.L. c. 25A s. 11F(a). This is a basic statutory requirement that DOER may not alter through rulemaking. A natural gas plant combusting some methane derived from processed landfill gas is not transformed into a renewable energy generating facility – it is still a natural gas plant and, as such, ineligible for RPS qualification.

In short, the language of the RPS statute is clear with respect to RPS Class I eligibility only for new (post-1997) LFG *generating units* -- not landfill gas *fuel* used in other contexts. This makes sense from a policy perspective because the RPS is geared toward assisting developers to meet daunting initial capital investment costs of renewable energy generating infrastructure that might otherwise pose a barrier to development of much-needed new clean generation.

While the RPS regulations do allow for co-firing with ineligible fuels (with RPS qualification allowed only for the electrical output from firing with eligible fuels) the regulations nonetheless adhere to the basic mandate of the statute in that *the actual generation unit* must itself be a "new renewable energy generating facility" in order for its output to qualify for Class I of the RPS. *See* 225 CMR 14.05(3)(b) (regarding waivers for co-firing eligible and non-eligible fuels, requiring that "[i]f [co-firing with] an Eligible Biomass Fuel, *the entire Generation Unit must meet the requirements of an advanced biomass power conversion technology* as set forth in 225 CMR 14.05(1)(a)6.") (Emphasis added.)

It is therefore appropriate, and consistent with the statute, that the existing regulations allow RPS eligibility for LFG only where the electrical output is produced by an LFG generating unit – i.e., a generating unit on-site or closely integrated with a landfill from which gas is extracted and converted to electricity. Thus, 225 CMR 14.05(1)(a)(5) defines as eligible "[l]andfill methane gas and anaerobic digester gas, *provided that such gas is collected and conveyed directly to the Generation Unit without use of facilities used as common carriers of natural gas*." Emphases added.[2]

[2] While a number of LFG *generating units* outside the ISO-New England control area have been qualified as eligible for the Massachusetts RPS, DOER has made clear (and existing regulations require) that "[o]utput from these plants will qualify as New Renewable Generation -- and thereby generate RPS-qualified GIS certificates -- only when and if they meet the special provisions of the RPS Regulations at 225 CMR 14.05(5) that pertain to any Generation Unit that is located outside of the ISO-New England control area." Ultimately, all eligible facilities – regardless of location – must be renewable energy generating units capable of generating electricity that can be delivered to customers in Massachusetts.

If the General Court had wished to disrupt this existing regulatory scheme, it could have done so when it revised the RPS as part of the Green Communities Act. It did not, and the existing regulations should be maintained intact.

Even if the "high-Btu landfill gas" proponents could somehow demonstrate that the RPS statute encompasses the use of methane derived from landfills as a fuel for natural gas plants, which they cannot, there would be many significant practical barriers to implementation. While the CESI comments focus on potential Massachusetts RPS market penetration only by methane from landfills in the PJM, Ohio and New York control areas, they fail to explain why or how methane injected into the interstate pipeline system anywhere else in North America would be subject to a different disposition than methane injected in PJM or Ohio – nor could Massachusetts discriminate based on geographic boundaries, for the reasons set forth in CLF's comments regarding eligibility for imported renewable energy (in letters to DOER dated October 1 and October 15, 2008). Although the proponents seem to conflate the regional electric grid with the interstate gas pipeline system, these systems are fundamentally different not just in terms of the commodities they transport but also in terms of operation, geographic reach, and constraints (e.g., the existence and location of bottlenecks). Unlike the regional electric grid, which does not allow electric power to be delivered to Massachusetts from far-flung states such as California and Louisiana (or beyond), the interstate pipeline system *can* be used, at least theoretically, for the delivery of a commodity between such distant locations. This would mean that, if the "high-Btu landfill gas" proposal were adopted, Massachusetts ratepayers could find themselves funding methane processing at landfills throughout North America – with the majority of benefits and capacity for monitoring/administration correspondingly diminished. Given that CESI alone asserts that it manages approximately two billion cubic feet (bcf) of natural gas in the Northeast (presumably per day, although this is not stated), including "high-Btu landfill gas" that is commingled with natural gas, tracking and monitoring of the "eligible" gas would pose extraordinary administrative burdens.

In addition, as CESI admits (at p. 3), the federal Clean Air Act and related U.S. Environmental Protection Agency (EPA) regulations already require methane gas from significant landfills to be either destroyed or beneficially reused. Given such federal requirements and the escalating commodity price of natural gas, there already exists a significant incentive to produce pipeline-quality methane from landfill gas. CESI supplies no economic or other rational to explain why any further incentives might be needed, and wholly fails to demonstrate what real value (consistent with the goals of the RPS) Massachusetts would receive in return.

While some of CESI's arguments may have merit in terms of the greenhouse gas reduction benefits of extracting pure methane from landfill gas and using that "high-Btu" gas in more efficient electric power plants, for all of the foregoing reasons it is clear that the Massachusetts RPS is not the appropriate tool for the incentive program CESI seeks.

Hydropower:

Hydropower proponents, including the Bay State Hydropower Association (BSHA) and TransCanada Power Marketing Ltd. (Transcanada) make several arguments that are wholly at odds with the RPS statute as revised by the Green Communities Act.

To appreciate this disconnect, it is important to consider, again, the actual language of the RPS statute with respect to hydropower. Specifically, the statute requires eligible hydropower facilities to meet "appropriate and site-specific standards that address adequate and healthy river flows, water quality standards, fish passage and protection measures and mitigation and enhancement opportunities in the impacted watershed as determined by the department in consultation with relevant state and federal agencies having oversight and jurisdiction over hydropower facilities." Mass. G.L. c. 25A, s. 11F(c) and (d).

BSHA argues that "the great majority" of hydropower facilities potentially eligible for RPS Class I are licensed by the Federal Energy Regulatory Commission (FERC) and thus should be able to effectively bypass the RPS statute's environmental criteria so long as the facilities possess a Section 401 Water Quality Certification pursuant to the federal Clean Water Act. BSHA letter regarding RPS Class I regulations, October 15, 2008 at p. 2 (suggesting that the Department thus can "eliminate a large amount of costly, time consuming, redundant, bureaucratic effort, and accelerate the certification of many megawatts of eligible capacity"). Transcanada, for its part, argues that a Section 401 Water Quality Certification under the Clean Water Act "should satisfy the RPS Environmental Standards." Transcanada RPS Comment Letter, October 15, 2008, at p. 2. This argument – that existing federal licenses are somehow enough to demonstrate RPS eligibility – might have made sense if there were no specific environmental criteria for hydropower in the RPS statute, as is the case for a number of eligible technologies including wind, solar, ocean thermal, wave and tidal energy. However, as with biomass (for which the statute specifically requires a "low emission" standard), existing state and federal permits are *not* enough in and of themselves to warrant RPS eligibility for hydropower facilities; instead, specific environmental performance must be ensured. The statutory environmental criteria cannot simply be read out of existence as BSHA and Transcanada propose.

BSHA implicitly admits that FERC licensing of hydropower facilities prior to 1986 was inferior to FERC's post-1986 regulation,[3] yet still tries to persuade DOER that robust state and federal regulatory programs for older hydropower facilities have existed "for decades" and that this regulatory structure "has the *exact* effect of complying with the statutory provisions of the Act in this area" (emphasis added)[4] – hence, according to BSHA, there is no need for DOER to do anything more than require a FERC license and 401 Water Quality Certification even from older Class II facilities.

In some instances, such as in the case of very recent FERC licenses based on comprehensive settlements, a FERC license coupled with a Section 401 Water Quality Certification *may* indeed reflect a hydropower facility's consistency with the criteria in the RPS statute. But given the well-known potential environmental impacts of hydropower facilities and the long and not entirely successful history of FERC licensing, proof of existing licenses is insufficient, taken alone, to demonstrate that the statutory environmental criteria are met.

[3] See p. 2 of BSHA's RPS Class I comment letter, arguing that "After 1986, all FERC regulated hydro facilities, licensed or exempted have been required to participate in a highly prescribed process of consultation with all relevant environmental agencies of federal and state government," etc.
[4] See p. 2 of BSHA's RPS Class II comment letter.

CLF does support an implementing regulation that would allow otherwise-eligible hydropower facilities to demonstrate compliance with the *water quality criteria* for RPS Class I or II if they have a valid 401 Water Quality Certification. One reasonable approach for addressing all other statutory environmental criteria for eligible hydropower would be to require facilities to procure certification from the Low Impact Hydropower Institute (LIHI). This would allow for an objective, experienced third-party evaluation of all potentially eligible hydropower facilities by a non-profit entity with a geographic reach that easily encompasses all facilities that could qualify for Massachusetts RPS Class I or II without the jurisdictional and staffing constraints of Massachusetts DEP, Riverways or the Department of Fish & Game. Consultation with these other key state agencies with relevant expertise would still be important, consistent with the statute, but LIHI appears to be well situated as a certifying authority given that LIHI's own certification criteria line up well with the statutory requirements (i.e., river flow, fish passage, water quality and watershed protection). In addition, the implementing regulations should provide for ongoing monitoring so that RPS eligibility remains contingent on meeting the requisite environmental criteria over time.

Because (contrary to BSHA's suggestion) not all existing hydropower facilities under 5 MW in capacity will meet the RPS statutory criteria, the RPS Class II target – whether set specifically for hydropower or as an aggregate target for several technologies – should be adjusted accordingly rather being set at a level indicative of 100% eligibility for all existing small hydropower facilities. CLF agrees with BSHA's assertion that ACP for Class II hydropower "should be as low as possible" yet sufficient to keep the market viable and provide an incentive for aging facilities to reduce their environmental impacts.

Finally, the BSHA has advanced no justification for its assertion that hydropower facilities must be certified "to begin producing Class I RECs [sic] as of January 1, 2009," and that the mere submission of an application within 90 days of issuance of final regulations will somehow be sufficient for facilities to be qualified (and be eligible to sell RECs retroactively). For all of the reasons stated above and in CLF's initial comments, the statute clearly requires more than that in connection with determining the RPS eligibility of hydropower facilities. Meaningful review pursuant to the statutorily-defined environmental criteria is imperative and must not be allowed to be short-circuited.

Ultimately, there is an important opportunity here to promote continued operation and improved environmental performance from existing hydropower facilities, as well as the development of responsible new (and incremental new) hydropower facilities. To realize these objectives, DOER must give meaning and effect to *all* of the statutory criteria governing RPS eligibility for these facilities.

Biomass:

Construction & Demolition (C&D) Debris: The Green Communities Act not only significantly revised the Massachusetts RPS but also created a special commission "for the purpose of making an investigation and study relative to the burning of construction and demolition waste as it relates to the renewable energy portfolio standard program established by section 11F of chapter

25A of the General Laws." Green Communities Act Section 87. The Act sets a specific timeline of July 1, 2009 for the special commission to report the results of its investigation and its recommendations (specifically including any draft legislation) to the clerks of the Massachusetts House of Representatives and Senate. To clarify CLF's initial comments on the subject of C&D debris, CLF respectfully requests that DOER not take any steps to allow C&D debris to be deemed an eligible biomass fuel – either directly or through a back-door qualification pursuant to a Beneficial Use Determination (BUD) – at least until the special commission's work has been completed and public comment has been taken on any ensuing policy recommendations.

Contrary to what is argued by ReEnergy Holdings LLC in its comment letter of October 15, C&D debris is *not* currently designated as an eligible biomass fuel (see CLF's RPS I & II Comments dated October 15, 2008), and it makes no sense to direct RPS incentives to promote combustion of this material when the entire question of its use is the subject of a statutorily mandated special commission review.

Biofuels**:** Biofuels proponents New Generation Biofuels and the Northeast Biofuels Collaborative (NEBC) strain to suggest that the Green Communities Act somehow has ushered in new support for biofuels through the RPS.[5] This is not at all the case. Biofuels, including biodiesel, have been statutorily recognized as eligible biomass fuels since the RPS was first adopted over a decade ago. The revised RPS statute sets forth no new mandate with respect to biofuels. What has changed is that Massachusetts has now enacted a comprehensive greenhouse gas emissions reduction mandate through the Massachusetts Global Warming Solutions Act, and has also enacted the Clean Energy Biofuels Act that requires biofuels to demonstrate meaningful lifecycle greenhouse gas emissions reductions in order to qualify for tax credits or an interim blending mandate. To support the requirements of these new statutory mandates, DOER should adopt regulations to ensure that biofuels used in RPS-eligible biomass facilities at a minimum meet the greenhouse gas emissions reduction standards set by the Clean Energy Biofuels Act.

Indeed, we agree with NEBC's assertion that "DOER should ensure that biofuels used under the amended RPS have climate benefits." NEBC Oct. 15 letter at p. 1. Anything less would create a perverse incentive for combusting inferior, carbon-intensive biofuels for electric generation; such uses would also notably entail a questionable overall energy cost equation (given the energy losses from converting biomass to biofuel for ultimate combustion, when the biomass feedstock could instead be directly converted to electricity). Contrary to what is argued by New Generation Biofuels, DOER does have the authority to limit biomass/biofuel feedstocks as RPS-eligible biomass fuels to the extent they are unable to meet the Commonwealth's important policy mandates regarding greenhouse gas emission reductions.

While NEBC complains that liquid biofuels may only be deemed RPS-eligible fuels when used with low-emission advanced biomass power conversion technologies (and New Generation Biofuels essentially argues that this requirement should be ignored),[6] this is a requirement that is

[5] See NEBC RPS I & II Comment Letter dated October 15, 2008, at p. 1 (arguing that DOER should "allow bio-based diesel and other liquid biofuels to fully participate in the RPS, as intended by the Green Communities Act").
[6] New Generation Biofuels comments on the use of liquid biofuels as a substitute fuel in "peaker" facilities, but does not specifically argue that RPS Class I or II eligibility should apply – nor can it effectively make such an argument

set by statute and cannot be eviscerated by DOER through rulemaking. In addition, as discussed above in connection with CLF's comments on LFG issues, there are important policy underpinnings for granting RPS eligibility only to new renewable electric generating infrastructure and not for "renewable fuels" that are used to displace fossil fuels in traditional fossil fuel-fired power plants.[7] Moreover, while there might be greenhouse gas emission reduction benefits if rigorous lifecycle greenhouse gas emission reductions were required from eligible biofuels, there would still be an urgent need to address other emissions, such as NOx and particulate matter (PM), that are typically associated with the combustion of biofuels. The RPS' low-emissions mandate for biomass facilities is critically important for ensuring the RPS serves to promote only clean generation, and cannot be ignored.

It is not true, notwithstanding New Generation Biofuels' assertions, that requiring eligible biomass generating units to meet the statutory low-emissions criteria would have the result of "preventing" coal facilities from reducing their emissions through co-firing a renewable biofuel. The RPS does nothing to stop a coal facility from pursuing co-firing with biofuel, and indeed could provide an incentive for repowering such a facility with advanced power conversion technology and better emissions controls.

Other biomass issues: CLF notes that Pinetree Power Fitchburg generally suggests a reasonable approach with respect to tailoring relevant RPS targets and ACP levels in order to ensure adequate revenue to compensate for emissions control upgrades for Class II biomass eligibility. However, given the existence of other RPS programs in the region that provide eligibility for existing biomass facilities, and considering that not all existing biomass facilities will immediately meet the Massachusetts statutory "low-emissions" requirement, we believe Pinetree's suggestion for a 5.5 to 6% target is too high. The Class II emission limits for NOx and PM proposed by Pinetree appear to be reasonable (i.e., 0.075 lbs/MMBtu for NOx and 0.02 MMBtu for PM), although CLF believes specific PM limits are very important and should not be traded off for increased NOx reductions (as proposed by Pinetree as an alternative approach).

The arguments made by Chinook Energy that municipal solid waste should be deemed eligible as a Class I biomass fuel – and that this would create "unambiguously desirable" incentives – should be rejected out of hand. The RPS specifically addresses waste-to-energy as a Class II resource that is entirely distinct from renewable biomass.

Waste-to-Energy (WTE):

CLF supports setting a separate Class II target for WTE, given the unique characteristics of these facilities and their fuel (which is not a true "renewable" fuel in the first place and typically brings in "tipping fee" revenues). Contrary to what is argued by Covanta Energy, however, it makes no sense to set a WTE target above the level of projected demand "to create some slight supply

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given the statutory limitation to eligibility for renewable energy generating units, not the use of "renewable fuels" in traditional generating units.

[7] NEBC admits that key RPS policy objectives would not be served if RPS eligibility were allowed in the case of biofuels displacing fossil fuels at traditional power plants, and indeed suggests that such financial support is not needed as it is for capital investment in new renewable energy generation. See NEBC RPS I & II Comment Letter at p. 4 ("co-firing bio-based diesel requires little additional capital investment, can be implemented quickly, and can have . . . immediate real-world impact.")

demand tension." Covanta Energy RPS II Comments at p. 3. The express purpose of RPS Class II is to support existing generation, not to create market tension to foster new demand. Nor is the proposed $28/MWh ACP level warranted for existing WTE facilities – and neither Covanta nor Wheelabrator Technologies Inc. supplies a meaningful rationale for their argument that this ACP level makes sense for WTE.

Given that the RPS statute explicitly requires each eligible WTE facility to operate or contract for one or more recycling programs approved by Massachusetts DEP, DOER should reject Wheelabrator's proposal that facilities be permitted to make payments to DEP in lieu of operating or contracting for recycling programs.

Conclusion

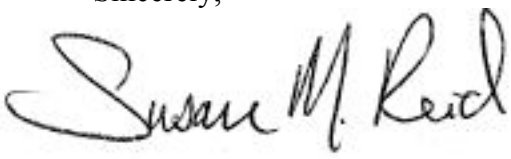
Implementation of the Green Communities Act's revisions to the Massachusetts RPS calls for delicate balances to be struck. It is critically important to maintain the integrity of the existing RPS Class I while integrating new resource eligibility, on-site carve-outs and a new Class II.

On one hand, a number of stakeholders have made reasonable arguments with respect to the particularized needs of distinct renewable energy resources, in terms of the incentives needed to foster their successful deployment or ongoing operation. On the other hand, some stakeholders understandably call for simplicity; as DOER is well aware, if the RPS becomes too complicated with a multitude of separate targets and ACP levels, procurement will become correspondingly more difficult. A reasonable balance likely includes the retention of a general Class I target and maintenance of the existing Class I ACP level and adjustments, setting of separate solar carve-outs and ACP levels, and separate Class II targets at least as between WTE and other resources.[8]

At the same time, thoughtful implementation is also required to ensure the statutorily required environmental criteria are given effect. The issues raised by stakeholders in opposition to these criteria can readily be disposed of based on the plain language of the RPS statute.

Thank you, again, for the opportunity to provide these comments.

Sincerely,



Susan M. Reid, Esq.
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[8] While not unambiguously clear, the Class II RPS provision does not appear to require DOER to set specific targets for *each* Class II resource; rather, the statute requires DOER to "specify that a certain percentage of [the Class II] requirements shall be met through energy generated from *a* specific technology or fuel type." Mass. G.L. c. 25A, s. 11F(e) (emphasis added).